

XVIII. *Second Part of the Descriptive Catalogue of a Zoological Collection made in the Island of Sumatra and its vicinity. By Sir Thomas Stamford Raffles, Knt., F.R.S.*

*Read March 20, 1821.*

A V E S.

VULTUR.

VULTURES are rare on the west coast of Sumatra, but are occasionally seen on the Malay peninsula and at Penang.

FALCO.

HALANG or LANG of the Malays. هلع

In this genus the species are so numerous and so liable to variation, that it is not easy to determine them with certainty without ampler means of reference than are obtainable in India. Those contained in this collection appear reducible under the following species.

1. FALCO OSSIFRAGUS, Linn. VAR.

LANG BOOMBOON. هلع بمبون

2. FALCO DIMIDIATUS.

LANG LAUT, or SEA EAGLE. هلع لاوت

Resembles the preceding in size and general appearance, but has the head, under part of the body, and end of the tail white, with bill and cere blue. Both species live chiefly on fish.



## 3. FALCO BACHA.

This species, described by Le Vaillant, has been found in Sumatra both at Bencoolen and at Acheen.

4. FALCO PONDICERIANUS, *Gmel.*

LANG BONDOL. هلغ بندول

This species of Kite is frequent throughout India and the eastern islands, and is very useful in devouring carrion. It is commonly called in India the Bramini Kite.

5. FALCO COMMUNIS, *Gmel.* VAR.

RAJAWALI of the Malays. رجولي

SIKAP LANG of the Sumatrans. سيكف هلغ

LAKI ANGIN of the Passummahs. لاکي اغن

This Falcon is in high estimation among the Malays, who consider it as the prince of birds, and have frequent allusions to it in their poetry.

6. FALCO NISUS, *Linn.*

SIKAP BALAM. سيكف بالم

Of this there are several varieties. The smallest kinds are called Sikap belalang, or Mangkas.

## 7. FALCO CALIGATUS.

LANG TAMBIKAR. هلغ تمبيکر

Is a large, and perhaps a new species.

It is above two feet in length, and more than three feet across the wings. Bill and claws blueish-black; cere blueish. Legs covered with short feathers down to the toes, which are pale yellow.



yellow. The colour on the back and wings is fulvous brown, the edges of the feathers being lighter coloured, and the wing-feathers having darker transverse bands. The lower parts are white, with a lanceolate brown spot in the middle of each feather; on the abdomen and thighs these become transverse stripes. The bill is straight at the base, curved at the point, and the upper mandible has an obtuse dent in the middle. The feathers on the head rise into a kind of crest behind, and are lighter coloured than those of the body. The cheeks are whitish, with brown spots. The rectrices are brown, with several dark transverse bands. The wings are shorter than the tail, and their fourth feather is the longest.

## STRIX.

BURONG HANTOO, or PONGO. بورغ هنتو ثقگو

Also called TooHOOK توهورق by the Sumatrans.

Hantoo and Pongo are both names given by the Malays to certain imaginary beings of evil omen, or in one word, hobgoblins. Owls are also called birds of the moon; and are fabled to be in love with that planet, because they are said to be particularly vociferous just before she appears, and to become silent the moment she rises above the horizon, as if they had then attained the object of their wishes. There are three species in the collection.

### 1. STRIX SUMATRANA.

The first and largest resembles in colour the *S. nyctea*, or Snowy Owl, but is a horned species.

It is about fourteen inches in length; its plumage white, and each feather marked with transverse stripes of brown, which are fainter below than on the back. The great wing-feathers are black; the secondary deep brown, with yellowish bands



mixed with white, particularly on the inner side, and at the points. The horns are not very remarkable. The eyes are surrounded with a well-marked circle of white, stiff, bristly feathers; the eyelids are fringed with black ones. The ears are oval and small. The bill is yellow, curved, and surrounded at the base by bristles, which are directed forwards, and are as long as the bill; those on the upper mandible black, on the lower white. The legs are feathered to the toes. Tail rather short, with white bands and tips. Wings equal in length to the tail.

This species agrees generally in character with the *Strix Bubo*, but has the colour of *S. nyctea*.

## 2. *SRIX LEMPIJI*\*.

The second species resembles the *S. Scops* of Europe, being of the same size, but differs in some degree in its colours, which are a mixture of brown and buff, darker on the back and lighter on the breast, which is moreover marked with narrow arrow-shaped spots of black.

## 3. *STRIX SCUTULATA*.

The third is a hornless species, about ten inches in length, brown above, lighter and variegated with white below; the tail with black bands; legs feathered to the toes; yellow irids; and wings shorter than the tail.

## PSITTACUS.

The species of this genus are much less numerous in Sumatra and the Malay peninsula than in the more eastern islands, particularly the Moluccas. The following are natives of the former countries.

\* *S. Lempiji*. Dr. Horsfield, page 140 of this volume.

## 1. PSIT-



1. PSITTACUS ORNATUS, *Linn.*

Is found on the Malay peninsula.

2. PSITTACUS ERUBESCENS, *Shaw.*

BURONG BAYAU. بورغ بايو

This species is not unfrequent in Sumatra. The specimens in the collection are from the vicinity of Bencoolen. It is this species that figures in the fables and poetry of the Malays, in which it is represented to be endowed with a supernatural degree of intelligence.

3. PSITTACUS GALGULUS, *Linn.*

SERINDIT. سرينديت

Found in the interior of Bencoolen.

4. PSITTACUS MALACCENSIS, *Lath.*

TANOW, or PIALING. تانو فيالينغ

5. PSITTACUS SUMATRANUS.

KÉKÉ. كيكى

This species is about twelve or fourteen inches in length, entirely green, and with a moderately long even tail. The bill is light flesh-coloured; the feet blueish or lead-coloured. A naked blackish space surrounds the eye, which has the irids white. The feathers on the neck have a yellowish tinge, and those of the rump are blueish. On the rest of the body the green is pretty uniform, but is brightest on the head. The inside of the wings is blackish.

Besides



Besides these, there are numerous species met with in captivity, which have been brought from the more eastern islands, such as the *Psittacus Gigas*, *cristatus*, *sulphureus*, *Dominicella*, &c., which it is unnecessary to particularize, as they are for the most part well known. One of the most beautiful of these is the *P. cyanogaster*: an individual of this species has long been a familiar inmate of my house, and is remarkable for its extreme degree of familiarity and domestication. It is always left at perfect liberty, and associates freely with all the other animals in the house. It attends regularly at table, courts the caresses of all, and shows an extraordinary degree of jealousy if the slightest attentions are paid to any other favourite.

### TROGON KASUMBA.

BURONG KASUMBA. بورغ كسمبا

Appears to resemble *T. fasciatus*.

The bill is strongly notched near the point, not serrate, as in the rest of the genus. This beautiful species is about ten inches in length, and appears to vary somewhat in colour according to age and sex. In the larger specimens the colours are less bright. The back is there of a yellowish-brown; the lower parts yellowish mixed with red. The head and neck are covered with filiform feathers, partly black, partly grey. A whitish band divides it from the breast. The wing-coverts are black, with white fasciæ, which are wider and greyish on the larger coverts. The remiges are black, with a narrow edging of white on some of the feathers. The two upper tail-feathers are fawn-coloured tipped with black; the next black, sometimes tipped with brown; and the lower ones partly white. The bill is dark blue, approaching to black, short, broad at the base, with a prominent arched keel above, strongly



strongly notched near the point. The lower mandible is incurved at the edges, turned upwards at the point, and notched. The nostrils are oval, situated near the base of the bill, and partly covered by the feathers; above each is a fascicle of strong black bristles: there is another fascicle on each side of the lower mandible, and a single one on the chin. The tarsi are short, and covered with blackish feathers tipped with reddish-white, which radiate in such a manner as to form a kind of ring or circle above the toes. The feet are formed for climbing. In young and smaller specimens the colours are much more brilliant; the head is of a velvet-black; the neck, breast, abdomen and rump are bright red, and the back is ferruginous. The whole of the wing-coverts are finely and delicately striated with white. The arrangement of the colours of the tail is the same as above described. The bill appears to be rather more depressed. In both old and young there is a naked space of the same blue colour as the bill behind the lower mandible, and another above the eyes. The irids are brownish-red. The skin is thin, and the feathers weakly implanted in it, so as easily to be pulled out; and hence it is not easy to prepare good specimens.

## BUCCO.

### 1. BUCCO PHILIPPENSIS, Linn.

CHANDA. چندا

This species does not appear to be different from the *B. Indicus*; and the latter name would probably be preferable, as being more general.

It is found in Sumatra.

### 2. BUCCO



## 2. BUCCO LATHAMI, Gmel.

AMPIS. امفيس

Is about six inches in length. Bill more compressed and arched than in the other species of the genus, and wanting the bristles at the base ; almost black in the male, but yellowish in the female. The legs are red, but become yellowish by drying.

Found at Singapore, and also in the interior of Sumatra.

## 3. BUCCO VERSICOLOR.

TAKOO. تاكو

Is a large species found at Singapore and in Sumatra.

About  $10\frac{1}{2}$  inches in length. General colour green ; dark above and lighter below. Crown of the head red. Throat blue ; sides of the head black, separated from the red on the top by a blue stripe. There are besides a spot of red behind the eyes, a second larger of orange-yellow on the side of the neck, and a third of red on the side of the breast. These colours are liable to vary, and some of the spots are often entirely wanting. Bill black, with the bristles at the base ; the upper mandible curved a little outwards near the base. Wings and tail green above and brown beneath. Legs blackish-blue. Behind the upper articulation of the tarsus are sometimes found a few hard sharp tubercles, which may possibly assist the bird in climbing. Only males of this species have been found, and among them scarcely any two were perfectly alike ; in some the breast was entirely black or grey ; in others marked with a white spot ; in some the crown of the head is grey, and the lateral red spot is frequently wanting.

## 4. BUCCO



4. BUCCO AUSTRALIS\*.

Is about the size of the *Bucco Philippensis*, or  $5\frac{1}{2}$  inches in length. The female only has been yet met with, and is of a green colour, somewhat lighter below. The throat is a greenish-blue. There are two red spots behind the eye, one rather above it, and the other larger below it. There is sometimes a black patch on the breast. Legs black; in which it differs from the *B. Philippensis*, whose legs are red.

CUCULUS.

1. CUCULUS FLAVUS, Gmel.

In the present specimen (a female) the tail is barred with brownish-yellow instead of white, as commonly described. The grey of the head extends to the breast. The nostrils are perfectly round and tubular, their edge forming a prominent ring.

Found at Pulo Penang.

2. CUCULUS TOLU†.

KRADOK, or BOOBOOT. كرادق بوبوت

The colours of this bird vary considerably at different ages. When young it is of a greenish-black, with rufous wings. As it becomes older, the belly becomes whiter, the shafts of the feathers on the head and back acquire a light colour, and the upper feathers of the tail become barred with grey. It lives on insects, is chiefly observed on the ground, and has a weak flight.

\* *Bucco australis*. Horsfield, p. 181.

† *Centropus lepidus*. Ibid. p. 180.



## 3. CUCULUS MALAYANUS.

This species has some affinity to the *C. lucidus*.

It is about seven inches in length; brown above, with a greenish gloss, particularly on the scapulars. The whole under parts are transversely barred with white and brown undulations. The wings are long, extending to about the middle of the tail; the coverts edged with ferruginous. The tail consists of ten feathers, of which the upper are greenish-brown, and the lower barred with brown, black and white. The bill is somewhat compressed at the base, and the nostrils are prominent. There is a row of white dots above the eyes.

Native of the Malay peninsula.

## 4. CUCULUS BUBUTUS\*.

This is one of the largest of the genus, being not much less than two feet in length. The whole body is of a deep blue colour with a greenish gloss. The wings are of a bright-red brown. The bill is black, compressed and arched. The nostrils narrow and oblique. The eyes are surrounded by a circle of black bristles. The irids are crimson. The tail, which is blueish-black, without spots or bands, is cuneated, and consists of ten feathers. The claw of the thumb-toe is longer than that of the others, but not proportionally so long as that of the *C. Tolu*.

It is a native of the forests of Sumatra, and feeds principally upon grasshoppers.

\* *Centropus Bubutus*. Horsfield, p. 180.

## 5. CUCULUS



5. CUCULUS MELANOGNATHUS\*.

INGGANG BALUKAR. اشنگ بلوکر

It is about 17 inches long. Back and wings blueish-green with a metallic gloss. The first half of the tail is of the same colour, but the extremity is of a deep sanguine brown. The throat, breast and uropygium are also brown; the abdomen is blackish. The head is covered with stiff bristly feathers, of a greyish-black. The bill is of a glaucous-green colour, compressed, arched, and somewhat hooked at the point. The lower mandible is red, and similarly curved. The nostrils are round, situated near the edge of the upper mandible, and surrounded by a fascicle of stiff erect bristles. A large naked red space surrounds the eyes, and extends forward to the bill. The irids are black. The feet are lead-coloured.

It lives on insects, and not, as has been stated, on fruits. It is found on the hills of Sumatra and the neighbouring islands; but is not easily procured, as it commonly perches on the summits of the highest trees.

6. CUCULUS SUMATRANUS.

SEPANDO of the Sumatrans. سيفندوق

Is a smaller species, nearly related to the preceding.

It has the same yellowish-green curved bill and naked red space round the eyes, and the same colours on the back and wings. The nostrils are similarly situated, but are not so round, their opening being somewhat elongated upwards. The length of this is about 15 inches, and the tail is nearly twice the length of the body. The head, throat, and breast are of a uniform

\* *Phænicophæus melanognathus*. Horsfield, p. 178.



dark grey. The tail, like the back and wings, is of a metallic blueish-green, and each feather is tipped with white. The abdomen is nearly black, shading into rufous towards the breast and vent.

Inhabits Sumatra and the adjacent islands, and lives on insects. It appears to resemble very nearly the *C. pyrocephalus*.

## 7. CUCULUS CHLOROPHÆUS.

BOOBOT. بوبوت

The characters of this species are in some degree intermediate between the true Cuckows and those of the two preceding, which belong to the division called after Le Vaillant *Malcoha*.

The eyes are surrounded by a naked space of the same green colour as the bill, which however is nearly straight, strong, and hooked at the point. The bird is about 13 inches in length, and the tail is longer than the body. The general colour is fawn or ferruginous, lighter on the under-parts, and passing into black at the extremity of the wing-feathers. The abdomen is blackish. The tail is dark coloured, regularly marked with numerous bands of black, while the extremity of each feather is white. The legs are blueish.

This species inhabits the forests of Sumatra, but is not common. It feeds on insects, like the rest of the genus.

PICUS. TUKKI. تكي

### 1. PICUS AFFINIS.

TUKKI BAWANG. تكي باواڠ

Is related to the *Picus viridis*, differing, however, in several particulars.

This



This species is about 10 or 11 inches in length, dusky green above, with a shade of yellow on the lower part of the back; cinereous or slightly ferruginous below, mixed with brown on the abdomen. Quill-feathers brown spotted with white. Tail-feathers brown, pointed as usual in this genus; the two uppermost with a few lighter-coloured spots along their inner margin. A grey patch encircles the eyes, bounded below by a black stripe mixed with white spots, which runs from behind the lower mandible.

In the male the crown of the head is red, often variegated with black, each feather being black at the base and red at the tip; in the female it is entirely black. The bill and feet are blackish-blue.

2. PICUS PUNICEUS\*.

TUKKI BAJUKARAP, or BELATU. تكي باجوکارب بلاتو

This species is about nine inches in length, of a dusky green above, shading into yellow on the lower part of the back; dark brown below, with lighter-coloured undulations and a slight green tinge on the sides of the throat and abdomen. It is remarkable in having the wings of the same crimson-red as the crown of the head. The two outer wing-feathers and the tips of the others are brown; and the inside of the wings is of the same colour, spotted with white. The tail-feathers are black. The bill is blueish-black, and the legs are cinereous.

3. PICUS BADIUS.

TUKKI KALABU. تكي کلابو

This appears to have a considerable resemblance to the *P. undatus* and *P. rufus* of Cayenne.

\* *Picus puniceus*. Horsfield, p. 176.



It is little more than eight inches in length, and is throughout of a ferruginous-brown colour waved with black, scarcely varying in intensity on any part of the body. Below the eyes are several small red spots or dots. The bill and legs are black.

4. *PICUS TRISTIS*\*.

TUKKI BOREH. تكي بوريه

Is only six inches in length; black, with transverse white undulations, which are numerous, and fine on the head and breast; larger and fewer on the back, abdomen, wings and tail. The rump is whitish, and there is a red stripe behind the lower mandible. The bill is black, and the legs blueish. The female has more of a brown tinge, with finer and more numerous undulations, which become scarcely perceptible on the head.

5. *PICUS MINOR*. VAR. TUKKI LILIT. تكي ليليت

6. *PICUS TIGA*†.

TUKKI BESAR, or *T. rufa*. تكي بسر

This is a very singular three-toed species of *Picus*, remarkable for wanting the thumb-toe, and differing therein from the *Picus tridactyla*, which is deprived of the outer toe.

It is above ten inches in length, orange-coloured on the back and wings, red on the rump, and variegated with white and black below. The outer quill-feathers and the tail are brownish-black. The nape of the neck is black, the sides white, with a black stripe from behind the eyes. The male has a red crest. In the female the head is black, with white spots,

\* *Picus tristis*. Horsfield, p. 177.

† *Picus Tiga*. Ibid.



and is not crested. The bill is blueish-black, and the legs are blueish.

### BUCEROS.

Of this genus, three species are abundant in Sumatra and the adjacent countries.

#### 1. BUCEROS RHINOCEROS, Linn.

INGGANG DANTO of the Malays. اشنگ دنت

The female differs from the male in being rather smaller, the horn being more recurved, and in having the iris white, while that of the male is red.

#### 2. BUCEROS CAVATUS.

INGGANG PAPAN. اشنگ فاقن

BURONG OONDAN (Malay). بورغ اوندن

#### 3. BUCEROS MONOCEROS.

KIKI at Malacca. كيكى

BUCEROS MALABARICUS, Gmel.

ANGKA ANGKA. اشك ۲ of the Sumatrans.

All these species vary considerably at different ages in the colours of the plumage, and the form of the prominences on the bill. They inhabit the forests, and live principally on wild fruits. They are occasionally kept tame, and the last in particular is easily domesticated.

#### 4. BUCEROS GALEATUS, Gmel.

Besides these, I have recently procured heads of another species, which is probably the *B. galeatus*, differing from most of the



the genus in the comparative shortness and the greater solidity and strength of the bill. The prominence, which is somewhat squarish, is rounded at top and truncated in front.

In Major Farquhar's collection of drawings, made at Malacca, is one of this species taken from a living specimen, which appears to differ in some respects from the description of that contained in the British Museum, particularly in having the two middle feathers of the tail more than twice as long as the rest. They are all white, and crossed by a black band near the tips. On the throat below the bill is a loose, naked, red skin. The naked space round the eyes and the legs are also red. The iris is orange-coloured. The head is black, with a spot of reddish-brown on the sides behind each eye.

This species is called Toko توكوك; and Burong Gading بورغ كديغ in Sumatra; and Tibbang Mantooa تبغ مانتوا at Malacca.

### 5. BUCEROS MALAYANUS.

In a paper (already quoted) sent by Major Farquhar to the Asiatic Society, and accompanied by drawings and specimens, is an account of several species of Hornbills found in the neighbourhood of Malacca. Among these is a species very nearly resembling the *B. coronatus* of Africa.

It is about the size of a Raven, and is particularly distinguished by a white stripe extending from behind each eye to the back of the neck, and so encircling the head. The bill is yellowish-white, and surmounted by a moderate sized crest, which slopes gradually in front to the curvature of the bill. The whole of the body is black, with the exception of the stripe above mentioned, and the tips of the three outer tail-feathers on each side, which are also white; the middle ones are black to the ends. The legs are of a greenish colour.

### 6. BUCEROS



6. BUCEROS PUSARAN.

The Sumatrans distinguish another species by the name of Pusaran فوسارن of which I have a living specimen, as yet too young to allow of being accurately distinguished, the horn being only partially developed. On its throat is a bag capable of being distended with air, of a bright yellow colour.

ALCEDO.

Of this genus there are six species in the collection.

1. ALCEDO LEUCOCEPHALA, *Gmel.*

BANG KAKO. بڠ كاكو

The belly is generally of a fawn-colour.

2. ALCEDO ATRICAPILLA, *Gmel.*

BURONG UDANG. بورڠ اودڠ

In this species the wings are crossed at the middle by a band of light whitish-blue, which is only observable when the wings are expanded; below them is a similar band of white.

3. ALCEDO CHLOROCEPHALA, *Gmel.*

BANG KAKO. بڠ كاكو

4. ALCEDO ISPIDA. VAR. BENGALENSIS.

BINTI. بنتي

5. ALCEDO CYANOCEPHALA *Shaw.*

BINTI.

6. ALCEDO TRIDACTYLA, *Linn.*

BINTI ABANG. بنتي ابڠ



## MEROPS.

## 1. MEROPS SUMATRANUS.

The upper parts of the head and neck, and the back between the shoulders, are of a beautiful chesnut colour. The posterior part of the back, the wings above, and the belly, are pure emerald-green. The plumes of the throat, as well as of the rump and vent, have a pale azure tint with a reflection of sea-green.

By the blue colour of the throat, as well as by the pure green of the back, wings and belly, it is sufficiently distinguished from the Senegal Bee-eater of Shaw, or the chesnut Bee-eater of Gmelin, which it resembles in the chesnut colour of the head, neck, and anterior portion of the back.

The extremities of the quill-feathers and the tail beneath are blackish-brown. The tail above is blue, with a diluted tint of sea-green; the two middle tail-feathers are greatly elongated, and towards the extremity the blueish tint is diluted: this is also the case with the vent-feathers. The wings underneath are ferruginous.

## 2. MEROPS JAVANICUS\*.

BIRI BIRI    بيري ۲

In the specimens found here there are light blue streaks above the eyes, but I have not observed white lines. Both species are frequent in Sumatra and the eastern islands.

There are three birds belonging to the division of *Picæ gressoriæ*, which differ essentially from all hitherto described, and must constitute two new and distinct genera in that order.

\* *Merops Javanicus*. Horsfield, p. 171.



The first, which I propose to name *Calyptomena* (à καλυπτω, *velo*), is characterized as follows:

Bill depressed and broad at the base, hooked at the point, and almost concealed by the feathers of the head. Nostrils round. Tongue short. Feet gressorial.

CALYPTOMENA VIRIDIS.

BURONG TAMPO PINANG. بورغ تمقوئينغ

This very singular and beautiful bird is about six inches and a half in length. Its colour is a brilliant green, like that of the Parrots. The head is rather large, and its feathers are directed forwards from each side in such a manner as nearly to conceal the bill, giving the face a very peculiar appearance. A little above and before the eyes the feathers are of a deep velvet-black at their base, and only tipped with green; and there is a similar spot of black immediately over the ears. The wings are scarcely longer than the body, green, but crossed on the coverts by three velvet black bands; the primary feathers, as well as the whole under-side of the wings, are dusky approaching to black, with the exception of the outer margins of some, which are edged with green. The tail is short, rounded, composed of ten feathers, which are green above and blueish-black below. The whole of the under-parts are green. This colour is lightest on the sides of the neck and round the eyes. The bill is short, wide, much depressed at the base, deeply cleft, and hooked at the point. Nostrils oval at the base of the bill, and concealed by the filiform feathers that project over them. The eyes are rather large; the irids blueish. Legs blueish-black. A few feathers come down over the upper part of the tarsi. Feet gressorial;



outer toe not much shorter than the middle one, with which it is united as far as the last joint.

The stomach of this bird contained nothing but vegetable substances, chiefly wild grains. It is found in the retired parts of the forests of Singapore and of the interior of Sumatra; and being of the colour of the leaves, and perching on the higher branches of the trees, it is not easily procurable. The female does not differ in appearance from the male.

The second genus\*, also belonging to the order of *Picæ gressoriæ*, is characterized by a very large, thick, strong bill, wide and rounded at the base, hooked and slightly notched at the point. The edge of the lower mandible is incurved under the upper. Nostrils not covered. Feet gressorial.

Of this genus there are two species.

### 1. EURYLAIMUS LEMNISCATUS.

BURONG PALANO, or TAMPALANO. ثلانو تمقلانو

It is about eight inches in length, of a thick, stout and rather heavy make. Above it is of a full black colour, beneath dark red. The head, chin and breast are black; the throat is encircled by a broad red band of dense, stiff, filiform feathers, which extends upwards on each side to behind the eyes. The lower part of the breast, abdomen, rump and upper tail-coverts are dark red. The scapular feathers, which are long and very acute, are of a pure white colour, contrasting strongly with the deep black of the back and wings. There is an orange line at the upper angle and edge of the wing, and a white spot on its inside. The tail is black, three inches in length, and cuneate. On each side of the bill are two or three

\* The genus *Eurylaimus* of Horsfield, p. 170



stiff bristles, which turn upwards. The bill is of a bright-blue colour, large, thick and strong, wide at the base, arched but scarcely carinate above, hooked at the point, where it forms a kind of rounded unguis, behind which is a slight notch. The lower mandible is scarcely shorter than the upper. The nostrils are narrow and horizontal, situated about the middle of the bill, and a furrow is continued both backward and forwards from them. Irids green. The feathers on the thighs are blackish; the legs are blue. The tarsi are rather long; the outer toe is connected to the middle one beyond the middle of the second phalanx. The claws are strong and hooked.

This species is found in the interior of Sumatra, frequenting the banks of rivers and lakes, and feeding on insects and worms. It builds its nest pendent from the branch of a tree or bush which overhangs the water, and is said to lay only two eggs.

## 2. EURYLAIMUS OCHROMALUS.

The second species is considerably smaller, being scarcely six inches in length. The head and chin are black, the back and wings black variegated with bright yellow. The scapulars are less distinct than in the preceding, and chiefly yellow. A white band surrounds the throat, divided from the breast by a similar one of black, which is incomplete in the female. The breast and abdomen have a light vinous-red tint; the uropygium is bright yellow. The tail is one inch and a half in length, composed of ten feathers, which are black, with a round white spot near the extremity of each. There are no bristles at the base of the bill, which is blue, like the preceding, but is more depressed at the base. It is somewhat arched, hooked, and notched at the point. In this, as in the former,



former, the upper mandible overlaps the lower, whose edges are incurved for the purpose. In this species the nostrils are round, and situated near the base of the bill. The feathers on the thighs are blackish, the legs reddish; the tarsi rather long; the outer toe united to the middle one as far as the last joint.

Found at Singapore and in the interior of Sumatra. They are seen in small flocks, and feed on insects, like the preceding.

### CERTHIA.

Of this numerous and beautiful genus there are several species in the collection; but it is not easy, without extensive reference to figures, to determine them all. They are known to the Malays by the general name of Chechap چچف or the Suckers, as they are said to suck the juices of flowers.

#### 1. CERTHIA SPERATA, *Linn.*

CHIRICHIT, CHECHAP, or SIAP. چریچیت چچف سیف

This is probably a variety of the *C. Sperata*, but has also a considerable resemblance to the *C. Brasiliana*, the sides and back of the neck being of a velvet-black, and the tail having a tinge of blue. The head is of the most brilliant golden-green, the throat of a splendid purple, the breast and abdomen dusky-red, and the shoulders and tail-coverts black, with a changeable shade of green and purple.

#### 2. CERTHIA ERYTHRONOTOS, *Lath.*

SIKRAT, or SIPA PUTRI. سیکرت سفا فتری

#### 3. CERTHIA



3. *CERTHIA SIPARAJA*.

SIPA RAJA. سڠا راج

This species has a blue patch on the forehead, and a stripe of the same colour on each side of the neck. The back of the head, neck, and upper part of the back are dark-red; the breast of a lighter red; the abdomen, wings, and middle tail-feathers brown, while the tail-coverts and outer tail-feathers are blue.

4. *CERTHIA JAVANICA*\*.

This appears to have a considerable resemblance to the *Certhia lepida*. The head and neck are blue, with a gloss of green and gold, the tail-coverts and some of the tail-feathers bright blue, the wings brown, with a tinge of ferruginous red on some of the lesser coverts. Throat ferruginous, with bright-blue stripes along the sides, which almost meet on the breast. Abdomen and breast yellow. Sometimes the head and neck have more of a green colour.

5. *CERTHIA LONGIROSTRA*†, *Latham*.

SIAP JANTUNG. سيف جنتونغ

This is larger than any of the preceding, and has a bill an inch and a half in length. Colour olive-green above, greenish-yellow beneath; a yellow patch below the eyes.

In all the *Certhiæ* the colours of the females are duller than those of the males.

\* *Nectarinia Javanica*. Horsfield, p. 167.

† *Cinnyris longirostra*. Ibid. p. 167.



## PARADISEA.

BURONG DEWATTA. بورغ دیوات

All the species of this genus are natives of the Papuan archipelago, whence they are occasionally brought alive. I have had in my possession living individuals of the common species, the *P. apoda*. They were fed on grasshoppers, and lived with me several months. I have specimens of the *P. sanguinea* Viell., whose description is very exact, as is also the figure, with the exception of the wings, which are represented too short. They are, in fact, nearly as long as the true tail. In the specimen from which Viellot's figure was taken, the wings were wanting; which will account for this little inaccuracy.

## CORVUS.

CORVUS CORAX, Linn.

GAGAH of the Malays. گاهی

This is not uncommon in the interior, but is scarcely ever seen on the coast near Bencoolen.

The other species belong to the short-tailed division, which has been separated from the true *Corvi*, under the name of *Myiothera*.

## 1. MYIOTHERA BRACHYURA, Illig.

CORVUS BRACHYURUS, Linn.

## 2. MYIOTHERA AFFINIS\*.

SINTAR. سینتر

TURDUS CYANURUS Lath.

It differs in having the pectoral band and transverse lines black.

\* *Myiothera affinis*. Horsfield, p. 154.

## 3. MYIOTHERA



### 3. MYIOTHERA CÆRULEA.

It is much larger than the former species, being above two inches in length, and seven or eight in height. It is of a thick heavy form, with a very short tail. The whole of the back, tail, and secondary wing-feathers are light-blue. The under-parts are brown, cinereous on the throat, with a greenish tinge on the breast, and a ferruginous one on the abdomen. A black collar surrounds the neck immediately above the shoulders. The crown of the head and back of the neck are also black, and a stripe of the same colour runs along its sides from behind each eye. The quill-feathers are black, with blueish tips. Bill blackish, strong, rather straight, curved at the point with a scarcely perceptible notch. Irids reddish. Tarse high, and of a dark colour. Claw of the hind-toe longer than the others. The female differs so considerably from the male, that it might be taken for a different species. It is somewhat smaller, of a reddish-brown or chesnut-colour above, with blue only on the tail and tail-coverts. Below it is of the same cinereous-brown as the male, and has the same black collar round the neck, and lines behind the eyes; but the crown of the head and neck have only transverse black lines on a ferruginous ground.

Here may be mentioned a bird that appears to differ very little from the *Corvus Papuensis*, now referred by Cuvier to the genus *Lanius*. It is very uniformly of a blueish-grey colour, with the exception of the wing- and tail-feathers, which are black. In the male the breast is often marked with transverse undulations of a dark colour\*.

\* This bird appears to belong to the genus *Ceblephrys* of Cuvier.



## CORACIAS.

In this genus, the most remarkable is the beautiful Fairy Roller.

1. CORACIAS PUELLA, *Lath.*

BIANG KAPOOR. بياغ كاڤور

Nothing can surpass the richness of the colours which distinguish the male of this species, they far exceed what any painting can convey. The crown of the head, back, smaller wing-coverts, and upper and lower tail-coverts are of the most resplendent smalt-blue, while every other part is of the finest velvet-black. The bird is above nine inches in length. The bill black, strong, somewhat curved, compressed, strongly carinate above, and notched near the point; surrounded with short bristles at the base. Nostrils roundish, and partially covered by the feathers. Irids crimson. Legs short and black. In the female there is no trace of the brilliant colours of the male; and the whole body, with the exception of the wing- and some of the tail-feathers, is of a dull blue.

Adverting to the form of the bill, compressed, carinate and notched, it seems doubtful whether this bird be truly a species of *Coracias*; and it is remarkable, that the Malays class it with the Biang, a species of *Lanius*.

It is found in the interior of Sumatra and the adjacent islands, and lives on wild grains and fruits.

2. CORACIAS ORIENTALIS, *Linn.*

TIONG BATU. تيونغ باتو

This bird is classed by the Malays with the *Gracula religiosa*; and the affinity of the latter to the genus *Coracias* seems recently to have been noticed in Europe.

## 3. CORACIAS



3. CORACIAS SUMATRANUS.

This is a singular species of *Coracias*, which appears to be undescribed. It was found in the interior of Sumatra, and is rather less than the *C. orientalis*.

The bill is red, and unusually large and wide, depressed at the base, arched, hooked at the point and notched. There is a naked space round the eyes, which is also red. It is black above and on the abdomen, with orange-coloured throat and scapulars. The quill-feathers are black, with a white band near the middle; tail black. The nostrils are round, situated near the commencement of the feathers, but not covered by them. Irids brown. Legs blackish.

GRACULA.

GRACULA RELIGIOSA, Linn.

TIONG. تيوغ

A variety of this is sometimes found with whitish spots on different parts of the body.

It is remarkable, that the smallest quantity of salt occasions the sudden death of these birds. The natives also affirm that the mere sight of blood is equally fatal to them.

ORIOULUS.

ORIOULUS CHINENSIS, Linn.

TIONG ALOU, or PUNTING ALOU. تيوغ الو. قنطيع الو

LANIUS.

The limits of this genus not being accurately defined, it is difficult in many instances to determine the true place of some of the species, particularly where they graduate into the genus



*Turdus*. A more accurate comparison in Europe can only determine this point; and in the mean time the following notice of the specimens in the collection may be sufficient for general reference.

1. LANIUS BENTET\*.

BURONG PAPA, or TIUP API. برورڠ قفا تيڤ اڤي

Is perhaps a variety of the *Lanius Excubitor*, and is very common in the Malay countries and islands.

Bill very strong, and deeply notched; sides of the abdomen and lower part of the back tinged with ferruginous. Total length about nine inches; tail longer than the body.

2. LANIUS SUPERCILIOSUS, *Lath.*

Has the same strongly-notched beak as the preceding; and, like it, has also the point of the lower mandible turned upwards, which approximates them to those called *Vauga* by Buffon.

It is smaller than the former, being little more than seven inches in length, and is differently coloured. The upper parts are of a light fulvous or ferruginous-brown; the lower white, with a ferruginous shade towards the vent. The back and wings are sometimes mottled. The cheeks are marked with a broad black stripe, from the bill extending behind the eyes. Tail not so long as the body.

3. LANIUS GULARIS.

BAROU BAROU. بارو

Is about seven inches in length, and has the bill straighter, weaker, and less deeply notched than the two former. Colour above a cinereous or blueish-grey; beneath white, and

\* *Lanius Bentet*. Horsfield, p. 144.



without ferruginous shade. Upper tail-coverts also white. A black stripe on the cheeks. Tail rather short, and without white. Wings extending to half the length of the tail.

4. LANIUS STRIGA\*.

BURONG KAPAS KAPAS. بۈرۈڭ كاپاس كاپاس

Is a smaller and more delicately-formed bird than the last, six inches and a half in length, and has the tail proportionally longer. Bill considerably shorter, smaller, and slightly arched. The crown of the head and back are of a shining blueish-black. The wing-coverts are of the same colour, but edged and tipped with fine white. The remiges are black, with a very narrow line of white on their outer edges; the rectrices also black, with white tips. The rump and upper tail-coverts light blueish-grey; a shade of which colour also appears on the breast, while the throat and abdomen are white. The cheeks are white, crossed by a black stripe from the bill to the neck. In the female the colours have a browner tinge, are less defined, and the glossy black of the head and back is entirely wanting.

5. LANIUS DIVARICATUS.

BERIBBA BURONG LILIN. بره بۈرۈڭ ليلين

About seven inches in length; tail as long as the body, and forked; upper-feathers blackish; lower ones white. The bill is straight, hooked, and notched at the point. The colour above is grey, becoming brown on the wings; below white. A black stripe from the bill to the eyes.

Found at Singapore; but it is also known in Sumatra. The above is the description of the female.

\* *Ceblephyrus Striga*. Horsfield, p. 145.

6. LANIUS



6. *LANIUS LEUCORHYNCHOS*, Linn.

Is seven inches and a half in length, and of a thick form and make. Bill light blue, darker at the point, strong, conic, somewhat arched, slightly notched, and scarcely hooked at the point. This species is peculiar in having the wings as long as the tail, and the first feather the longest. In most others it is the fourth feather which is the longest. The back, head and throat are of a greyish-brown; wing- and tail-feathers darker; breast, abdomen, rump, upper and lower tail-coverts white. Sides of the abdomen, under the wings, grey. Legs blackish.

7. *LANIUS CORONATUS*.

BURONG J'RI. بورغ جريه

This is rather a large species, being upwards of ten inches in length. The feathers of the head rise into a kind of cone behind, and two of them are particularly elongated, being two inches in length, and form a crest, which is directed upwards and backwards. The bill is black, strong, straight, compressed, hooked and notched at the point, roundly carinate above. Nostrils large and roundish. Five or six strong bristles at the angle of the upper mandible. The colour of the bird is an uniform chesnut-brown, which becomes darker on the feathers of the tail and crest. There is a remarkable white spot on each side of the neck, immediately above the shoulder. Tail about four inches long; the wings extend nearly half its length. Legs blue; claws very strong.

8. *LANIUS MALABARICUS*, Lath.

BURONG SAWEH. بورغ ساوي

9. *LANIUS*



9. LANIUS INSIDIATOR\*.

BIANG, or KALALUYANG. بياغ. كالالويغ

Also BURONG KLING. بورغ. كليغ

Is allied to the *L. Malabaricus*, particularly by the form of its bill, which is regularly curved, slightly notched at the point, and not hooked, carinate and arched above, the curve of the lower mandible corresponding with that of the upper. The tail-feathers are nearly equal, none of them elongated as in the preceding. The whole bird is of a greenish-black, with a glossy metallic lustre, exhibiting according to the light changing shades of copper and green. The wings extend to about half the length of the tail, and have the three first feathers of about equal length. The bill and legs are black. The irids crimson.

The name of Burong Kling has been appropriated to this bird, because he is black and has red eyes; sure signs, it is said, of a bad character; and also because, when he settles on a tree, he generally leaves behind him the seed of the fig or other parasitic plant, which, growing, in time chokes and destroys the tree that nourished and protected it. Such is said to be the conduct of the men of Kling or Coromandel to those who receive them.

10. LANIUS MUSICUS.

MOORAI, or MOORAI KICHOU. موري. كيچو

The Dial Bird, or *Turdus Mindanensis* of Gmelin and *Gracula saularis* of Linnæus; now with more propriety placed under *Lanius*.

It is one of the few singing-birds of India, and its note is pleasing. It is about eight inches and a half in length. In the

\* *Turdus chalybeus*. Horsfield, p. 148.



female the feathers of the throat and breast are whitish mottled with grey and brown; and several of the wing-coverts are also white with reddish-brown shades. All the colours are duller than in the male.

# 11. LANIUS MACROURUS.

TURDUS MACROURUS, *Gmel.*

CHANGCHOOI of the Sumatrans. چڦچوي

Nearly resembles the preceding, but has the abdomen of a bright ferruginous colour, while the rump and lower tail-feathers are white. The tail is considerably longer than the body; in the former it is of about equal length. This species also wants the white spot on the wings. It is about ten inches and a half in length, and has even a finer and sweeter note than the last. They are, in fact, the Nightingales of the eastern islands. Both kinds throw up and spread their tails in the manner of the Wagtails.

# 12. LANIUS\*.

Is also nearly related to the two preceding, but is much smaller, being only five inches and a half in length. It is of the same shining blueish-black above, but is white on all the underparts. The throat and abdomen are pure white, while the breast is shaded with a light grey. The rump is white, as in the preceding species, but the whole of the tail-feathers are black. The tail is rather shorter than the body. In all these three species the bill is straight, somewhat compressed, curved at the point, and moderately notched.

The two first are frequent in all the Malay countries; the latter I have only very recently procured; but it is probably not uncommon.

\* *Muscicapa obscura.* Horsfield, p. 146.

# 13. LANIUS



13. LANIUS RUFICEPS.

This species appears to resemble the *L. olivaceus*.

It is about nine inches long, with a compressed rather curved bill, scarcely notched at the point: the curve of the lower mandible corresponds to that of the upper. Head of a light ferruginous colour. The upper parts of a light olive-brown, the lower grey, almost white under the chin. Wings a little longer than the body, the outer edge of their quill-feathers yellowish-green. The tail is about four inches in length.

14. LANIUS XANTHOGASTER.

Is a small but beautiful species, about seven inches in length. Bill rather straight, compressed, hooked and notched at the point. Upper part of the body and head of an olive-grey; lower parts and sides of the forehead yellow. Wing-feathers black, edged with yellow. Upper tail-feathers black, lower yellow. A black line runs from the bill to the eyes, and there is a yellow spot on the wings. Bill and feet black. Nostrils covered with feathers.

TURDUS.

1. TURDUS COCHINCHINENSIS, Gmel.

BURONG DAUN. بونج داون

This appears to be the same bird as the *T. Malabaricus*, 125 Gmelin, which latter name ought therefore to be cancelled.

The female is of an uniform bright green, wanting the yellow and black of the male, but having the blue spots at the base of the bill. There is a variety of this bird found in Sumatra which is nearly twice as large, and exhibits less brilliancy of colour.



colour. It is nearly of an uniform green, with the exception of the blue spots behind the bill, and the black face and throat. It wants the tinge of the wing and tail feathers. In the female the chin and face are of a light yellow, not black as in the male.

2. *TURDUS FLAMMEUS*.

*MUSCICAPA FLAMMEA*, Gmel.

3. *TURDUS ANALIS*\*. Two varieties.

BIRIBBA. بربہ

The Biribba is said by the natives to elevate the feathers of the head when irritated.

4. *TURDUS DISPAR*†.

About seven inches and a half in length; yellowish-olive on the back, orange-coloured on the breast, shading into yellow to the vent. Head black; throat furnished with remarkable crimson feathers. Wing- and tail-feathers dark brown. Bill rather compressed, and very slightly notched. Irids red.

5. *TURDUS MELANOCEPHALUS*.

BURONG LILIN. بورغ لیلین

Has considerable resemblance to the preceding, but is smaller, being six inches and a half in length. It is greenish-yellow on the back and breast, yellow on the abdomen and rump. Head of a glossy blueish-black. Tail-feathers yellow, with a black band near the end. Outer wing-feathers nearly black. Bill and legs black.

\* *Turdus analis*. Horsfield, p. 147.

† *Turdus dispar*. Ibid. p. 156.

6. *TURDUS*



6. TURDUS.

Head, shoulders and breast blueish-grey, passing into white on the abdomen ; back and wings yellowish-green ; vent-feathers yellow. Outer wing- and tail-feathers deep brown or black. Bill and feet black. Irids reddish.

7. TURDUS SCAPULARIS\*.

Seems to resemble the *T. chrysogaster*, except in being much smaller.

Head and back yellowish-green. Throat and breast golden-yellow. Vent-feathers white. Wing-feathers black, variegated with white, and tinged with green. Tail green and black.

8. TURDUS STRIGA.

Seven inches in length, with rather a thick heavy body. Back, wings, and crown of the head of a shining blue-black ; underparts, forehead and neck greyish-white. Wing-coverts edged and tipped with white. Bill short, nearly straight, and scarcely notched. The colours of the female are much duller, and the upper parts are brown.

9. TURDUS AMBIGUUS.

A very small species, scarcely five inches in length ; general colour blueish-grey, inclining to black on the head, breast, wing-feathers and tail, and nearly white on the belly and edges of some of the wing-feathers. There is a broad white stripe below the eyes. Bill short, curved, and without any perceptible notch.

\* *Jora scapularis*. Horsfield, p. 152.



## MUSCICAPA.

1. MUSCICAPA CÆRULEA, *Gmel.*2. MUSCICAPA JAVANICA, *Sparm. Mus. Carls.*

MOORAI KANDANG. موري كندڠ

## 3. MUSCICAPA RUFIGASTRA.

Dark blue above, passing into black on the wings and sides of the head. Under-parts ferruginous. Bill and legs nearly black.

## 4. MUSCICAPA LATIROSTRIS.

Is remarkable for the extreme breadth of its bill. It is a very small bird, less than five inches in length, of a light brown above, and whitish beneath.

## MOTACILLA.

1. MOTACILLA INDICA? *Gmel.*

Resembles the *M. Indica*, but is white beneath.

## 2. MOTACILLA BISTRIGATA.

From six to seven inches in length. Tail as long as the body. Back greenish-brown; head dark grey; wing- and middle tail-feathers brown; breast and belly yellow, sometimes passing into white on the throat. Two feathers on each side of the tail white.

## 3. MOTACILLA GULARIS.

BURONG POODING. بورڠ فودينڠ

Brown above, yellowish beneath; head, wings and tail ferruginous; throat and breast marked with longitudinal black spots. Five inches in length.

## 4. MOTACILLA



4. MOTACILLA OLIVACEA.

Olive-brown above ; throat and breast white ; abdomen yellow ; wings and tail brown, the latter with a black band near the tip. Is five inches and a half long.

5. MOTACILLA SEPIUM.

KACHICHI. كچيچي

Four inches and a half in length. Back, wings and tail dusky-green ; under-parts white. Head ferruginous red ; bill brown ; legs reddish.

6. MOTACILLA FRONTALIS\*.

The whole of the upper parts are a fine blue ; the throat is nearly white ; the belly of a dirty reddish-white. The forehead is black, and the eyes are encircled with the same. Irids nearly white. Bill red, straight, without notch, broader at the base. Legs dusky. Hind-toe remarkably long.

LOXIA.

1. LOXIA PHILIPPINA, Linn.

This species, well known by its curious hanging nests, is called by the Malays Tampooa, تمثوا ; and by the Sumatrans Pintau, پينتاو. It is the same as the Bayah of Bengal.

2. LOXIA MALACCA, Linn.

\* *Sitta frontalis*. Horsfield, p. 162.

3. LOXIA



## 3. LOXIA ORYZIVORA, Linn.

GELATIK. گلاتيك. The Java Sparrow.

This species is comparatively rare in Sumatra.

## 4. LOXIA LEUCOCEPHALA.

PIPIT BONDOL. فثيت بندول

Is about the size of the *L. Malacca*, of a reddish-brown or chestnut colour, growing darker towards the tail, and becoming almost black on the abdomen. Head and neck almost white. Bill blueish; legs black.

## 5. LOXIA PRASINA, Sparrm. Mus. Carls.

RANNAS. رانس

This is a very beautiful species, in some degree intermediate between *Loxia* and *Fringilla*.

It is of a bright green on the head, back and wings; blue on the throat and forehead; dirty green on the breast; red on the middle of the abdomen; and passing into a rusty yellow towards the vent. Tail-coverts and base of the tail-feathers vermilion, their extremity black, as are also the outer wing-feathers. The two upper tail-feathers are nearly twice as long as the rest. Bill of a fine black, conical, round at the base; both mandibles a little scolloped towards the middle, which is not very apparent when they are closed, as the lower is then received within the upper.

They are frequently seen in the rice-fields, and are great destroyers of the grain, as well as the other *Loxice*.

ALAUDE.



ALAUDA.

1. ALAUDA PRATENSIS, *Linn.*

LANCHA LANCH. لنچه ۲

Or, HAMBА PUYU. همب قويو

2. ALAUDA.

LETTI LETTI. لتي ۲

Smaller than the former; brownish above, yellow beneath.

HIRUNDO.

LAYANG LAYANG. لايغ ۲

1. HIRUNDO ESCULENTA, *Linn.*

Little can be added at present to the accounts already given of this bird, and the edible nests for which it is so celebrated. There are caves in various parts of Sumatra to which these birds resort, but from want of care and management they are not productive.

2. HIRUNDO RUSTICA, *Linn.*

3. HIRUNDO URBICA.

CAPRIMULGUS.

CAPRIMULGUS EUROPÆUS, *Linn.*

SANG SAGAN. سغ سگن

Of this there are two varieties, one with much brighter and more marked colours than the other. They are very abundant in



in the neighbourhood of Bencoolen, and are always seen flying about in the evening. They make no nests, but lay their eggs on the bare ground.

### COLUMBA.

POONAI. قوني

#### 1. COLUMBA JAMBU, *Gmel.*

POONAI JAMBU. قوني جمبو

A most beautiful species, about ten inches in length, green above, pure white beneath. Head crimson, a stripe of deep cinnamon colour on the throat below the bill. A softened crimson spot on the middle of the breast. Tail-feathers equal, green, like the back, with whitish or cinereous tips. Lower tail-coverts fulvous. Bill yellow, nearly straight. A yellowish naked space round the eyes. Irids orange. Legs feathered nearly to the toes, which are red.

This species varies considerably at different ages. When very young it is almost entirely green. The head first assumes its red colour by degrees, the lower parts next become lighter, and it is not till the period of maturity that they acquire their full whiteness. The red spot on the breast is the last colour that appears; and it is doubtful whether the female ever has it.

#### 2. COLUMBA AENA, *Linn.*

PERGAM. فرگم

This is a very large and beautiful species, exceeding fifteen inches in length. The back and wings are of a brilliant deep green with a variable gloss of gold and copper. The head, neck and under-parts are of a claret-coloured grey. The tail  
above



above is nearly of the same colour as the back, but with more of a blueish tint; below it is brown, and the lower tail-coverts are of a deep red-brown. The upper part of the tarsi is feathered; the feet are red. The bill is generally blueish, rather straight, hooked and gibbous at the point. Irids blue.

The female scarcely differs in colour from the male.

### 3. COLUMBA BADIA.

LAMPATTU, or PERGAM KALABU. لمڤتو

A larger species than the preceding, to which it seems to have considerable affinity. It is sixteen inches in length, of a chestnut-red on the back and wing-coverts. The under-parts are of a blueish vinous tint, which extends round the neck, and becomes a blueish-grey on the head and cheeks. The wing-feathers are of a deep brown approaching to black; those of the tail, which are long and nearly equal, are almost black, with a cinereous tinge at the tips. The lower tail-coverts are white. Bill and feet red. Legs feathered nearly to the toes. There is no naked space round the eye, but the circle of the eyelids is bright red. The iris is white.

### 4. COLUMBA JAVANICA? Gmel.

POONAI TANNA. قوني تانه

LIMOO-AN of the Sumatrans. لموان

Back and wings of a bright metallic-green, with a gloss of gold. Lower parts of a vinous red, paler on the abdomen. The back of the head and neck are of a cinereous blue, becoming whitish on the forehead and temples. The wing- and tail-feathers are black. The bill and feet are red.



It is called Poonai Tanna, because it is generally seen on or near the ground, and rarely upon trees. They are caught by means of the following device: A small mat shed is erected sufficient to conceal the fowler; a space is cleared in front of it, and a tame Pigeon placed on it: a trumpet is then blown within the hut, and the wild Pigeons are attracted by the sound; when they alight they are taken by a running-noose at the end of a wand, which the fowler manages without being seen by the birds.

5. COLUMBA VERNANS, *Linn.*

POONAI. فوندي

THE COMMON GREEN PIGEON.

The female is nearly of an uniform green colour. In the male the head is of a blueish-grey, becoming vinous on the neck, and with an orange patch on the breast. There is no naked space round the eyes.

6. COLUMBA CURVIROSTRA, *Gmel.*

POONAI UBAR. فوندي اوبر

The female wants the chesnut colour on the back. There is a naked space about the eyes of a bright glaucous colour.

7. COLUMBA AMBOINENSIS, *Linn.*

8. COLUMBA TURTUR, *Linn.*

BALAM, or TERKOOKU. بالم تركوكو

9. COLUMBA



9. COLUMBA BANTAMENSIS, *Sparm. Mus. Carls.*

KATITIRAN. كيتيران

About eight inches in length. The colour on the breast is of a vinous red, much less bright in the female than in the male.

The natives reckon three varieties of the Katitiran, differing in size. They are very generally kept tame, and, as well as the Balam or Turtle, are trained to fight with each other. Poonai is the generic name of the Doves which the Malays distinguish from the Balam or Turtle family by being less exclusively granivorous. The Dove is a subject of Malay poetry as much as it is of European.

PAVO.

1. PAVO CRISTATUS, *Linn.*

M'RA, or MARAK. مرق

The common Peacock is a native of the Malay peninsula and of Java, but is not common near Bencoolen.

2. PAVO BICALCARATUS, *Linn.*

KUAOW CHIRMIN, كواو چرمين

This beautiful bird is frequent throughout the Malay peninsula, and is also known in Sumatra.

PHASIANUS.

1. PHASIANUS GALLUS, *Linn.*

AYAM UTAN, or BROOGA. ايم هوتن بروگ

This is the *Gallus Bankiva* of Temminck, and is frequent in the forests of Sumatra.



2. PHASIANUS IGNITUS, *Latham.*

TUGANG. توگ

This species is larger than a Cock, and is of a fine steel-black colour. The lower part of the back is of a fiery ferruginous tint. The four middle tail-feathers are white, and there are narrow white streaks along the middle of the feathers on the sides of the breast. The head is ornamented with a crest of tufted feathers, and the naked cheeks are of a fine ultramarine blue. The legs are armed with long and remarkably strong spurs.

The female is smaller, and has none of the brilliant colours of the male. It has no crest, and the whole plumage is of a mixed brown and black; there are no white feathers in the tail, and the flame-coloured patch on the back is wanting. In the young of both sexes the colours are equally dull.

3. PHASIANUS ARGUS, *Linn.*

KUAOW. كواو

This magnificent bird, the pride of the Malayan forests, in elegance of form and richness of attire is perhaps unequalled in the feathered race. They are found in the deep forests of Sumatra, generally in pairs; they are said by the natives to make a galangan, *i. e.* to dance and strut about each other in the manner of the Peacocks. The plumage is too well known to require description. Their total length is frequently five feet, and the two middle tail-feathers exceed three.

In a Malay poem, descriptive of the birds of Sumatra, the Argus Pheasant is thus shortly but aptly characterised: "In the superb and many-coloured Kuaow, it is impossible to discover a single fault save one, the difficulty of pronouncing its name."

## 4. PHASIANUS



4. PHASIANUS ERYTHROPHthalmus.

MIRA MATA. میرد مات

This species is as large as a common fowl. The plumage is black, with a blue and green gloss; on the back and wings it is finely undulated with white or grey. The wing-feathers are brown. The feathers of the tail, disposed as usual in two inclined planes, are of a bright rufous or ferruginous colour. The tail-coverts are tinged with purple or violet. The naked space on the cheeks is of a bright red. There are no wattles or crest. The bill is blackish and strong; legs blueish, and armed with strong spurs.

The female differs from the male in being entirely of a steel-black, without white undulations or rufous tail. In the young ones also the tail is black.

5. PHASIANUS RUFUS.

BURONG TRAB. بورغ ترب

This, which does not appear to have been hitherto described, is larger than a common Cock, being about twenty inches in length. The plumage above is of a deep ferruginous colour, finely mottled with black. The feathers of the breast are also ferruginous, but each has a black band, and is edged with white, while those of the abdomen are principally white and dusky. The chin is nearly white. On the head is a crest, which lies backward, but can be elevated in some degree. The naked space on the cheeks is blue. The irids are red. The tail is not long, and is similar in colour to the back. The legs are sometimes reddish, sometimes blueish, and are unarmed, there being only a small tubercle in place of a spur. The female differs but little from the male.

TETRAO.



## TETRAO.

## 1. TETRAO VIRIDIS, Gmel.

BENIOL. بنيول

The male of this species has been described under the name of *Columba cristata*, but its proper place is under *Tetrao*. I am at a loss to perceive any good reason for placing it under *Phasianus*, as Cuvier has lately done.

It is rather smaller than the common Partridge. The whole plumage of the male is of a glossy deep green, approaching to black. The quill-feathers are brown mottled with black. On the head is an elevated crest of filiform feathers of a bright red brown colour, in front of which are a patch of white and a small fascicle of erect black bristles. The eyes are surrounded by a narrow circle of red imbricated scales; and there is a small naked red space behind them. Irids yellowish. Legs red, unarmed; hind toe without a claw.

The female differs from the male in having no crest, and in being of a grass-green colour with the exception of the head, which is nearly black. There are sometimes a few long plumose bristles on the forehead.

## 2. TETRAO OCELLATUS.

BURONG TROONG. بورغ ترونغ

This beautiful species is of the same size as the preceding. The head, neck, breast and belly are of a bright rufous or ferruginous colour, barred on the sides with black. The back is black, with yellowish bands across the upper part, and marked behind with arrow-shaped spots of the same rufous colour as the lower parts. The wings are blackish, each covert marked with



with a round black spot. The tail is short and black, with rufous variegations. The top of the head is marked with black, and there is a black stripe over the ears. There is no naked space about the eyes, in which it agrees with the *Coturnices*, but the legs of the male are armed with blunt spurs, sometimes double. The bill is black; the irids yellowish-grey. The hind toe has only a very small horny tubercle in place of a nail, which approximates this species to the *T. viridis*.

### 3. TETRAO CURVIROSTRIS.

LANTING. لنتینگ

This approaches nearest to the *T. Gingicus*, but must be considered a distinct species.

It is larger than the common Partridge, and is remarkable by having the upper mandible arched, and much longer than the lower, often forming a nail-like hook at the point. The top of the head and neck are dark brown; the throat and cheeks rufous. The upper part of the breast is of a blueish-grey or lead-colour, which extends nearly round the neck; the back and upper part of the wings are brown variegated with black and grey, while the shafts of the feathers are yellowish. The lower part of the back, wing- and tail-feathers are dull yellowish finely mottled with grey, and marked with some black points. The abdomen is light ferruginous, passing into white behind. The bill is black; the legs whitish or lead-coloured, armed with short thick spurs. There is a naked space behind the eyes; irids orange. The female is a little smaller than the male, and the young ones want the lead-grey on the neck.

### 4. TETRAO



4. TETRAO SINENSIS, *Linn.*PIKAU. ڦيڪو

The male of this has been fully described; the female differs considerably, wanting entirely the white on the throat. Its upper parts are grey mottled with black, and the shafts of the feathers white. The throat is yellowish-grey; and the under-parts are the same, with black bars.

They are seen in flocks, often a hundred together.

5. TETRAO LUZONIENSIS, *Gmel.*PUYU. ڦويو

This is a tridactylous species of Quail. The colours vary much in different specimens. The head, back and wings are varied with black, brown, and fawn-colour, of which sometimes the one, sometimes the other predominates. In full-grown birds the head is generally black, spotted with white, particularly at the sides, while the back is more of a red-brown, and the wings are black banded with white. The breast also varies, being sometimes ferruginous, but at a later period becoming marked with transverse bars of black and white. The abdomen is always of a ferruginous colour. The throat is black in the males, generally whitish in the females. Bill rather long, yellowish, which is also the colour of the legs. The irids are white.

These Quails are frequently kept tame, and the females are trained to fight with each other by the natives of the country. The superior courage of the females of this species has given rise to a common Malay proverb, in which a hen-pecked husband is compared



compared to a Puyu. The Puyu is always seen in pairs, never in flocks like the preceding.

I am at a loss to discover what species of Quail is intended by the *T. Suscitor*, or Indian Quail of Bontius. The Pikau and Puyu are the two generally known throughout the eastern islands. The latter is the most frequently domesticated, and becomes as tame as the common fowl. It is the one trained for fighting; and they will often combat with such fury as to kill each other. It is not however noisy, and in the wild state is only seen in pairs. The Pikau, on the contrary, has a loud clear note, is seen in flocks, will not become so tame as the other, and is not valued for fighting. It would seem as if the manners of both these were confounded in the account given of the *T. Suscitor*.

## ARDEA.

### 1. ARDEA DUBIA, Gmel.

BANGOU SULA. باشو سوله

Or, BURONG KAMBING. بورغ كم بيج

Also, BURONG GAJA. بورغ گاجه

A small variety, with nearly black back and wings. The Argal is not so abundant in the eastern islands as in Bengal.

### 2. ARDEA ALBA, Linn.

BANGOU PUTI. باشو فوته

### 3. ARDEA SUMATRANA.

A large subcrested Heron, with long slender neck and bill, of a blueish-grey, variegated with ferruginous; white on the chin.



## 4. ARDEA MELANOLOPHA.

Has a shorter thicker neck ; is of a chesnut colour mottled with black ; tail and crest black ; bill rather short. Belly variegated with white, black and brown. It is about eighteen inches long.

5. ARDEA CINNAMOMEA, *Gmel.*

BURONG KALADI. بورغ کلادي

Much smaller than the preceding ; subcrested ; of a bright chesnut colour, slightly mottled.

## 6. ARDEA PICTA.

PUCHONG UDANG. فوجونغ اوداڠ

Is about sixteen inches in length ; of a dark-brown colour, approaching to black, mottled with fawn and white. Legs and bill short, strong and greenish.

## 7. ARDEA JAVANICA\*.

BURONG PUCHONG. بورغ فوجونغ

Is about fifteen inches in length, of a greenish-brown above, blueish-grey below. The feathers of the head are of a dark olive-green, and elongated into a pendent crest. The neck is rather short. The bill dusky and yellow. Lores green. Legs yellowish.

\* *Ardea Javanica*. Horsfield, p. 190.



TANTALUS.

1. TANTALUS IBIS. VAR.

2. TANTALUS CINEREUS.

Is smaller than the preceding ; of a light-grey colour, with the exception of the abdomen and rump, which are white ; and the wing- and tail-feathers, which are black.

SCOLOPAX.

1. SCOLOPAX ARQUATA, Linn. VAR.

TEROK. تيروق

There are two varieties of this ; a large, called Terok Indo ayam, or Terok Gaja ; and a smaller, called Terok Padi.

2. SCOLOPAX GALLINAGO, Linn.

SEKADIDI. سكديدي

THE SNIPE.

3. SCOLOPAX CAPENSIS, Linn.

4. SCOLOPAX SUMATRANA.

KOONING KAKI. كونيغ كاكى

A small species, with long bill curved upwards. Grey above, white beneath. Quill-feathers blackish.



## CHARADRIUS.

1. CHARADRIUS ŒDICNEMUS, *Linn.*

GADANG KAPALA. گدڠ كفال

Two varieties.

2. CHARADRIUS PLUVIALIS, *Linn.* VAR.

CHERULING. چرولینگ

3. CHARADRIUS HIATICULA, *Linn.* VAR.

BURONG BOOI. بورڠ بوي

## RALLUS.

## 1. RALLUS GULARIS\*.

AYAM AYAM. ايم ۲

Brown, with small white bands ; lighter coloured beneath. Bill dirty red. Legs blackish.

## 2. RALLUS SUMATRANUS.

RUA RUA. رواق ۲

Nearly black above ; white beneath ; ferruginous near the vent. Bill blackish. Legs dusky.

## 3. RALLUS FASCIATUS.

Chesnut above ; breast and throat ferruginous ; abdomen transversely barred with black and white. Quill-feathers dark brown, with some white bars. Bill blueish-black. Feet red. Irids red.

\* *Rallus gularis*. Horsfield, p. 196.

## GALLINULA.



GALLINULA.

1. GALLINULA ORIENTALIS\*.

This is probably only a variety of the *Gallinula Chloropus*.

STERNA.

1. STERNA STOLIDA, Linn.

2. STERNA CANTIACA? Gmel.

SAMAR LAUT. سامر لاوت

The prevailing colour is a delicate blueish-grey or lead; the head capped with black, with some white spots in front. Throat, cheeks and lower tail-coverts white. Wings much longer than the tail. Bill and legs dusky-red.

3. STERNA PANAYENSIS? Gmel.

Blackish-brown above, white beneath. A white stripe from the base of the bill to the eyes. Vertex black mixed with white; occiput, back of the neck and wings black. Tail of the colour of the body. Wings about the same length as the tail. Bill and legs black.

4. STERNA SUMATRANA.

A small species with short tail, and wings about the same length with it. The prevailing colour is white, tinged on the back, head and wing-coverts with light reddish-brown, and mixed with a few dark spots. A blackish crescent extends from eye

\* *Gallinula orientalis*. Horsfield, p. 195.



to eye round the back of the head. Wing-feathers lead-grey, the first one nearly black. Lower parts snow-white. Tail of the same colour as the back.

## PELECANUS.

1. PELECANUS PHILIPPENSIS, *Gmel.*

2. PELECANUS MANILLENSIS, *Gmel.*

LAMPIPI. لمثيقي

These two appear to be little more than varieties of the *P. Onocrotalus*. Further observations however are required to decide whether or not the differences they exhibit are sufficiently constant to entitle them to the rank of species.

3. PELECANUS LEUCOCEPHALUS, *Gmel.*

DANDANG LAUT. دنداغ لوت

This appears to be sufficiently distinct from the *P. Aquilus*, though pronounced to be the same by M. Cuvier.

4. PELECANUS SULA, *Linn.*

THE BOOBY.

## PLOTUS.

PLOTUS MELANOGASTER, *Gmel.*

DANDANG AYER. دنداغ اير

ANAS.



### ANAS.

Of this genus the most common is a species of Teal, called Bilibi.

It is about twelve or fourteen inches in length, the back blackish, the feathers on the upper part tipped and edged with brown. Upper part of the wings dark-chesnut; quill-feathers black. Crown of the head dark-brown; neck cinereous, which colour passes into ferruginous on the breast and abdomen. The hind toe is free.

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Of the remaining classes it would be tedious to enter here into a detailed account; the more particularly, as the largest proportion of the subjects are forwarded for examination and description in Europe, it being impossible to enter into minutiae in this country, without occasioning delay and detriment to other more pressing avocations. Drawings of the most remarkable have been made; and the specimens, for the most part preserved in spirits, and accompanied by a catalogue, will afford every facility for detailed examination at a distance. The following general account may therefore suffice for the present purpose.

### AMPHIBIA.

In the first division of Amphibia, the species in the collection are not numerous. Of the Sea Tortoises, the *Testudo Mydas*, or Katong, کاتونگ, and *T. imbricata*, or Katong Kara, کاتونگ کاره, are the most common, and are found in most parts of these seas. The tortoise-shell of the latter is a considerable article of commerce at Singapore and other places.

Two species of fresh-water Tortoises are known by the names of



of Labi لابي and Baning بانيغ; and the Land Tortoises are called Kúra Kúra كورا. One of those in the collection is probably the *T. serrata*.

Of *Lacertæ*, the *L. Crocodilus*, or Buaya, بواي is abundant on all the coasts of these islands and at the mouths of rivers. It often attains to a great size. The next is a variety of the *L. Monitor*, called Biawak, بياوك, whose spots are of a bright yellow. It grows to be more than six feet in length, and often commits depredations in the poultry yards. A second variety is called by the Malays Biawak Poongor, and is chiefly distinguished by having a shorter tail. It is said not to eat flesh, like the preceding, but to live chiefly on leaves and fruit, and to reside mostly in the water.

Of the *L. Gecko* there are two kinds, one called Toké, توكي which is in the collection, and the other Gogok, گوك both which names are imitations of the cry of the animal. The people of Sumatra have no dread of them, but, on the contrary, sometimes keep them in their houses for the purpose of destroying vermin, and have no idea of their being poisonous.

There are two varieties, differing chiefly in colour and the arrangement of the spots, which appear to belong to the *L. scutata*, Linn. They are called Grooning گرونيغ by the Malays, and are said to change their colours, particularly in dying.

The Binkasa بيثكاس is a small long-tailed green Lizard.

The *Draco volans* (Chichak Terbang) چيچق تريغ is frequent in the Malay islands, and is believed by the inhabitants to be very poisonous. All these animals are sufficiently known, not to require particular description.

Of *Rana* there are three species in the collection, called by the Malays Kodok botong botong, Kadok Kangkong, and Kadok Kessé. From the heart of the latter a poison is said to be prepared by the natives.



## SERPENTES.

About twenty species are in the collection, some of which are new. Among those already well known, may be enumerated the *Coluber Naja*, or *Cobra di Capello*, called by the natives Ular mataharee and Ular Sindo, اولر متھاري, اولر سندق, which is frequently met with in the neighbourhood of Bencoolen. Mr. Marsden appears to have fallen into an error in stating that this species was not known here; but it is remarkable, that notwithstanding the existence of this and other poisonous snakes, we scarcely ever hear of instances of any person being bitten, a circumstance which the people ascribe to the power of a Kramat, or burial-place of a saint; but which perhaps may be accounted for from the thinness of the population. The *Cobra di Capello* of Sumatra is of a lighter colour than that of India, and the spectacles of the hood are less distinct. The fangs also are smaller.

The *Coluber Bucephalus* is also found in Sumatra.

Of the *Coluber gramineus* there are two varieties, not uncommon in the islands.

The *Coluber mycterizans*, Ular Daun اولر داون of the Malays, is one of the commonest snakes of Sumatra and the neighbouring islands, where it is chiefly observed on trees.

There is another species considerably resembling it, and called Ular Lidi, اولر ليدي, which has the power of elevating the scales of the neck, which are of a darker colour on their under surface, and thus producing a variegation of colours, which disappear when the animal is at rest, much in the manner described by Russel of the Botla Paseriki, Pl. 13. The scale immediately above the anus has a black line along its middle, giving it the appearance of being double.

One of the most remarkable snakes in the collection is a green



one, called by the Sumatrans Ular Poochook, اولر فوچق, which has some resemblance to the *C. gramineus*, but is larger and much more venomous, being peculiarly distinguished by having two fangs on each side, of extraordinary length.

This species appears to be undescribed, and may be named *C. Sumatranus*.

It is about four or five feet in length, and rather thick. The head is large and obtusely triangular, with two large plates above each eye. The general colour is green; but the body is encircled by several irregular black rings, and the tail is of a reddish colour. Each scale on the body is edged with black. The fangs are above half an inch in length, white and slender, curved backwards. The number of abdominal scales is 184; of caudal 69. It is found in the forests, chiefly upon trees, and considered very dangerous.

Another snake, which appears to be new, was found at Singapore, and is related to *C. Dipsas* by the large dorsal scales. It is not venomous; is about six feet long, and of a pretty uniform reddish colour, becoming rather dusky on the head and light on the belly. There are several other snakes of less importance, among which the Ular Tanna, or Ground Snake, and Ular Chindi, marked with red spots along the sides, may be principally noticed.

The *Boa Constrictor* is occasionally found in Sumatra. One in the collection measured eleven feet and a half in length. A portion of the skin of another was brought to me from the interior of Sumatra, which, when dry, was upwards of twenty-one inches in circumference.

The *Acrochordus fasciatus*, or *Hydrus granulatus* of Schneider, is sometimes but rarely met with on the coasts of Sumatra.

Of *Hydrus* there are three species or varieties, having considerable







*Scomber Madagascariensis*, and five other species.

*Trigla volitans*.

*Silurus* . . . . . two species.

*Platystacus anguillaris*.

*Salmo* . . . . . one species.

*Esox becuna*.

—— *belone*.

—— *marginatus*.

*Exocoetus volitans*.

*Polynemus* . . two species.

*Clupea* . . . . . eleven species.

*Ostracion cornutus*.

*Tetrodon hispidus*.

*Diodon Hystrix*.

*Syngnathus Hippocampus*.

*Balistes biaculeatus*, and another species.

*Raia guttata*.

—— *Thouiniana*, and eight other species.

## INSECTA, VERMES, &c.

Seseral cases of insects, arranged according to the Linnean order, have been forwarded for examination in Europe, and more are daily collecting.

Upwards of fifty species of Cancer, many of which are probably new, are also forwarded for arrangement and description in Europe.

In these classes generally it may be observed, that no opportunity has been lost of increasing the collection; but from their nature they do not admit of that minute examination in this country which they require, and where time can ill be spared from the new and more important subjects which continually press upon the attention.

The



The Zoophytes have not been unattended to, and will hereafter be particularly considered when leisure shall be afforded to make drawings and examine the subjects with more accuracy. The coast of Sumatra is particularly rich in Madreporæ, Millepores, Isis, Antipathes, Gorgoniæ, Alcyonia, and Spongiæ, &c.

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## APPENDIX.

Since closing the preceding parts of this account, a specimen of a very singular and rare animal, called by the Sumatrans Singapooa *سيثاقوا* has been procured, and also a new species of *Buceros* and one of *Strix*. The former appears to be the *Lemur Tarsier*, hitherto imperfectly known.

### LEMUR TARSIER.

This animal is about six inches in length from the nose to the tail, which is about nine more. The hind legs are remarkably long, and the feet are very peculiar. The extremities of all the toes, on both the fore- and hind-feet, are dilated into a round, flat, fleshy callosity, which seems to enable the animal to hold with more advantage on the trunks of trees. At many of the joints of the feet and toes are similar callosities, but not so large. On the toes of the fore-feet there are no claws, their place being supplied by small scale-like processes occupying the centre of the upper surface of the rounded extremities of the toes. On the hind-feet three of the toes are in like manner unarmed; but the fore and middle toes are furnished with claws, which are sharp, somewhat curved, and stand nearly erect from the middle of the flat rounded extremities of the toes. The head is round, and the face broad; the



the mouth is wide, and the lips singularly crenated within. The pupils of the eyes are so large, that scarcely any other part of the eye is visible; the ears are large, and project laterally. The whole face has a peculiar and singular aspect, the grinning mouth giving it an odd expression of risibility. The number of teeth has been differently stated by authors. In this specimen there appear to be four above and the same number below, of which the middle two are the longest in the upper jaw, and the outer two longer in the lower. The canines of the upper jaw are longer than those of the lower, and are followed by a tooth which, from its proximity to the canine and distance from the other molars, might almost be taken for a second canine: in the lower jaw there is a vacant space between the canines and the molars. The tail is nearly naked to within an inch of the extremity, where it is tufted with hair.

The animal has been forwarded in spirits to Sir Everard Home: it will therefore be unnecessary to enlarge more upon it here.

The name Singapooa appears to be given to it from some fancied resemblance to a Lion, Singa signifying a Lion, and Pooa (the generic name of the Scitamineous plants) being employed figuratively to denote smallness. It is related in the fables of the country, that the animal was originally as large as a Lion, but has degenerated in modern times to the size we now find it.

It is only seen in the depth of the forests, and that very rarely, once perhaps in two or three years, and is said to live on various kinds of wild fruits and young leaves. It is said to ascend trees by short leaps, and to produce only one young one at a time. The inhabitants have a superstitious dread of these animals, insomuch that, if they happen to see one upon any tree near their ladangs or forest rice-fields, they will immediately abandon them and seek



seek another spot; otherwise they believe some misfortune will certainly befall them or their family.

BUCEROS COMATUS, R.

This species differs from all the others of the genus in the acuteness of the keel or arch of the upper mandible, which is also much shorter than usual, being scarcely six inches in length. The head and neck are covered with white feathers, more or less black at their roots. These feathers are wiry or filiform, and stand nearly erect, particularly on the top of the head, while on the forehead they are directed forwards over the crest of the bill and conceal it in part. On the sides of the head the feathers lie flat, and are directed upwards, so that the whole head looks as if surmounted by a stiff mane, or the furred crest of a helmet. The bill is of a dark horny colour, somewhat triangular, being broad at the base, and sloping to the point. The arch of the upper mandible is acutely carinate, and the crest, in my single specimen, not much elevated, equally carinate with, and parallel to the arch of the bill, and sloped off to it a little beyond the middle. It will require the examination of other individuals to ascertain whether the crest ever grows larger; but I think it cannot alter much. The irids are of a greenish-yellow. The back, wings and tail are of a dark brown, the belly of the same colour mixed with white. The wing- and tail-feathers are all tipped with white at their points. The legs are nearly black.

STRIX.

Of this genus a very large and probably new species has recently been procured in the neighbourhood of Bencoolen.

It is about two feet in length. The ground-colour is a light fawn, the feathers in the upper part being broadly shaded with



with dark brown along their middle; those of the back, wings and scapulars being moreover marked with two dirty white spots, which are sometimes confluent, forming a transverse stripe. On the under-parts each feather is marked with a narrow longitudinal black line. The wing- and tail-feathers are blackish, and banded with white and fawn-colour, their tips being white. The feathers on each side the head are elongated into horns. The eyes are surrounded by an imperfect circle of bristly feathers. The ears are rather large; the bill is black and hooked; the claws very strong and arcuate.

T. S. R.

FORT MARLBOROUGH,

June 1, 1820.